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MEMO

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From:
Sarah Fisher

Date:
January 6, 2010

ARCADIS Project No.:
IN000473.0020

Subject:
Supplement to RCRA Facility Investigation - Vermont Street Investigation

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Introduction

ARCADIS plans to perform an investigation on behalf of General Motors LLC (GM) south of the Allison Transmission, Inc. Plant 12 as a supplement to the RCRA Facility Investigation pursuant to the Corrective Action Agreement between GM and USEPA (see Drawing 1). The intent of this supplemental investigation is to collect volatile organic compound (specifically, vinyl chloride) data in groundwater between Plant 12 and the residential neighborhood south of Plant 12.

Background

- At the Allison Transmission, Inc. Facility, groundwater has been identified in three saturated sand units, S1, S2 (commonly subdivided into S2A and S2B) and S3. Each of these units is separated by a clay till unit.

- In October 2009, Keramida advanced four soil borings along Holt Road at the request of the Indiana Department of Environmental Management (IDEM) to collect borehole water samples. Keramida is working on behalf of Genuine Parts Company, conducting a voluntary cleanup of a former BHT Corporation facility. Borehole water samples were collected from three zones (top of saturated unit, middle of saturated unit and within or directly above a clay till) of the upper saturated sand unit (S2). These zones range in depth of approximately 20 to 24 ft, 28 to 34 ft and 36 to 44 ft below ground surface (bgs), respectively. Keramida encountered a clay till unit ranging from 36 to 42 ft bgs at the bottom of each soil boring.

- One monitoring well, MW-170D, is located on the east side of Holt Road. Samples from this well have contained concentrations of vinyl chloride approximately 100 times the Maximum Contamination Level (MCL) for vinyl chloride. Genuine Parts and Michigan Plaza have stated that the vinyl chloride concentrations were from an unknown source. Monitoring well MW-170D is screened from 34 to 39 ft bgs (just above a clay till).

- GM has monitoring wells nests west (MW-0524-S2A and MW-0524-S2B) and southwest (MW-0522-S2A and MW-0522-S2B) of the proposed soil borings along Michigan Street. During installation of these monitoring wells, a clay till dividing the S2 saturated unit into S2A and S2B was encountered from 19 to 25 ft (MW-0522-S2A/B) and 26 to 35.5 ft (MW-0524-S2A/B) bgs before reaching the bottom of the S2B unit at 40 to 42 ft bgs. No vinyl chloride has been detected in these well nests.

Scope of Investigation

ARCADIS will oversee the advancement of six soil borings (SB-64-1001 through SB-64-1006) presented on the attached drawing (Drawing 1). The soil borings will be advanced with a direct push drill rig which will allow for continuously collecting samples for identification of soil lithology, field screening with a photoionization meter, and collection of borehole water samples.

Due to the lithology in the area, it is likely that the direct push rig will encounter refusal and it will not be possible to collect a borehole water sample from within the S3 saturated unit in which two of the three nearby residential water wells are screened. However, to be consistent with the work completed by Keramida, ARCADIS will collect borehole water samples from the top, middle and bottom of the first encountered saturated sand unit (S2).

Two of the planned soil borings will be completed as temporary wells (one-inch piezometers) in order to obtain groundwater elevation data between the residential neighborhood and Plant 12. Additionally, if another combined round of groundwater elevations are collected between Genuine Parts, Michigan Plaza, and GM, the data from the piezometers can be used to increase the accuracy of groundwater elevation contour drawings.

The investigation is tentatively scheduled to start the week of January 11. 2010, and all sampling activity is expected to be completed no later than January 31, 2010.

Reporting

The findings of the investigation (boring logs and preliminary analytical results), will be submitted to USEPA within thirty days of completion of the field work.

Data Usage	Sample Matrix	Sample Locations	Number of Proposed Soil Borings	Laboratory Parameters	Analytical Methods (SW-846)
Assess if CVOC impacts identified in residential wells are associated with the Allison Transmission Facility	Borehole Water	SB-64-1001 and SB-64-1002 - southeast portion of Plant 12 property SB-64-1003 and SB-64-1004 - east side of Plant 12 southern parking lot SB-64-1005 and SB-64-1006 - along Michigan Street between Rybolt Avenue and Holt Road	6	VOCs	8260
	Groundwater	Monitoring Wells: MW-7-S2, MW-10-S2, MW-0812-S2A, and MW-0813-S2A	-	VOCs	8260

NOTES:
Borehole water samples will be collected during the direct push drill rig advancement. Intervals sampled will include the first encountered groundwater, ten feet into unit, bottom of unit (if greater than ten feet).
If a till unit is identified beneath the saturated sand unit and is less than 30 ft bgs, the soil boring will be advanced through the till unit to sample the underlying satruated unit.

LEGEND

- MW-7-S2 — EXISTING MONITORING WELL - PROPOSED VOC GROUNDWATER SAMPLE FOR VOC ANALYSIS
- SB-64-1001 — PROPOSED SOIL BORING - BOREHOLE WATER SAMPLE FOR VOC ANALYSIS
- SB-64-1002 — PROPOSED SOIL BORING - BOREHOLE WATER SAMPLE FOR VOC ANALYSIS COMPLETED AS PIEZOMETER TO OBTAIN WATER LEVELS

PLANT 3
PLANT 12
PLANT 14
MW-0812-S2A
MW-0813-S2A
MW-10-S2
MW-7-S2
SB-64-1001
SB-64-1002
SB-64-1003
SB-64-1004
SB-64-1005
SB-64-1006
SHAWNEE AVENUE
UTICA EAGLE DRIVE
HOLT ROAD
NORTH STREET
LYONS AVENUE
RYBOLT AVE.
COSSELL ROAD
MICHIGAN STREET
SOUTHWICK AVENUE
VERMONT STREET

N
300 0 300
Approximate Scale In Feet

VERMONT STREET INVESTIGATION

PROPOSED SAMPLING LOCATIONS

ARCADIS

DRAWING 1

CITY:(Req'd) DIV/GROUP:(Req'd) DB:(Req'd) LD:(Opt) PIC:(Opt) PM:(Req'd) TM:(Opt) LYR:(Opt)ON=*OFF=*REF*
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Vermont Street Sample.jpg

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